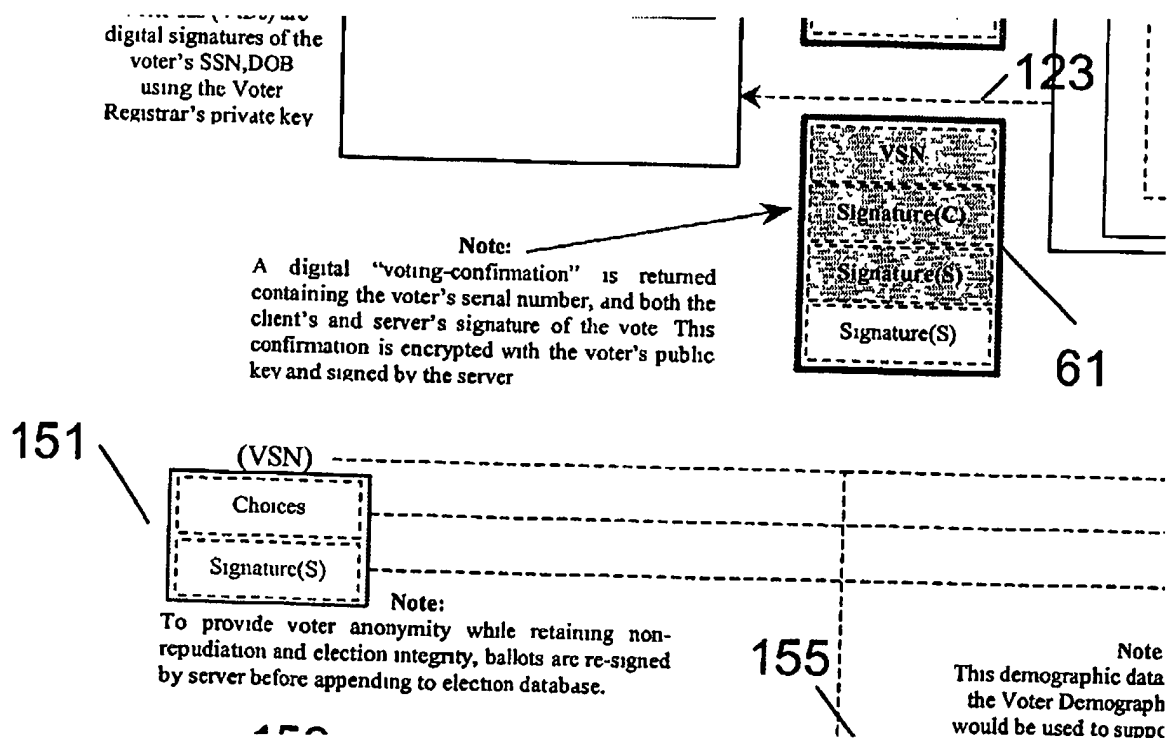


## AMENDMENTS TO THE DRAWINGS

### From the Un-entered Amendment

Figure 5 has been amended to be commensurate with the original Detailed Description of the invention and the invention as currently claimed. No new matter has been added.

Figure 3 has been amended to be commensurate with the original Detailed Description of the invention. In the note accompanying confirmation token 61, “*voter’s serial number*” is replaced with “*vote serial number (VSN)*.” This is consistent with token 61 containing “*VSN*” in the original disclosure. In the note accompanying the signed choices, “*ballots*” is replaced with “*choices/cast ballots/B<sub>cast</sub>*.” This is consistent with item 151 containing “*Choices*” and not “*ballots*.” The original disclosure is reproduced here for the Examiner’s convenience.



Additional Amendment

Figure 5 has also been edited as follows.

- A duplicate “*Sign CS with s*” was removed from “*Form Confirmation Subtoken*” since “*Sign CS with s*” is shown as a separate block in that figure.
- The reference to “*C*” for the client’s public key in “*Sign B<sub>cast</sub>: With C ...*” is replaced with “*V*” for the voter’s public key in accordance with original disclosure [0019] (reproduced below). This makes the notation consistent throughout the disclosure. No new matter has been added since “voter” V and “client” C are disclosed as interchangeable in that original disclosure (**emphasis added**).

*[0019] As described herein, the terms “individual”, “user”, “client”, and “voter” are used interchangeably, and refer to a person on their own terminal which can be a personal computer or other like device on which voting in accordance with the method and system herein is achieved.*

## **REMARKS**

### **Generally**

Claims 29-33 are pending. Claims 29-30 and 33 are rejected under 35 U.S.C. §102(e) as being anticipated by SHRADER. Claims 31-32 are rejected under 35 U.S.C. §103(a) as being unpatentable over CRANOR in view of SHRADER. Neither of the pending rejections establishes a *prima facie* case of unpatentability for reasons found in the earlier Replies.

Previous amendments (in part introducing Fig. 5 as a summation of the original disclosure) stand objected to under 35 U.S.C. § 132(a)<sup>1</sup> as introducing new matter because of Fig. 5 and references thereto. This Reply provides traceability from the original disclosure for each and every feature of Fig. 5.

Upon the Office's consideration of the earlier Replies in light of the Amendments, the undersigned is confident that the patentability of the pending claims over CRANOR and SHRADER will be clear. The undersigned encourages the Office to observe: [0019] , Fig. 5, the distinction between an un-cast and cast ballot, the particular data element to which each digital signature is applied, the particular key used in applying each signature, and the point at which a vote serial number (VSN) is assigned. Patentability of the pending claims lies in at least these claimed details.

### **Regarding Response to Amendment**

The undersigned appreciates withdrawal of objections to Claim 31, Claim 32, and Figure 3B. The undersigned maintains that the objections to Fig. 5 and Specification amendments are inappropriate. This Reply addresses those objections in the following sections.

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<sup>1</sup> It is assumed that the OA intended 35 U.S.C. §112(a).

Regarding Response to Arguments

The subsequent paragraph headings correspond to those of paragraph 4 of the OA.

a) The OA asserts at P04:

... specifically Figure 5 includes new matter wherein the examiner has been unable to find any support ... newly added Figure 5 appears to be an attempt to provide support for Applicant's argument that the vote serial number is assigned after a vote is cast ... examiner finds no support for such element/feature/limitation in the originally filed disclosure ...

The OA follows at P08 with:

... the examiner requests that Applicant's cite specific paragraphs and phrases within those paragraphs or specific Figure elements that support the revisions and more importantly clearly define when and how the vote serial number is assigned to a ballot ...

A spreadsheet tracing all features of Fig. 5 to specific paragraphs and phrases within those paragraphs and specific figure elements in the original disclosure that support each feature of Fig. 5 is included with this Reply.

Clear disclosure on when and how a VSN is assigned to "vote delivered in an election" (and not to an uncast ballot) can be found at least in original disclosure [0054]. Upon entry of all pending amendment materials the application will not contain contrary information directed to unclaimed embodiments.

b) The undersigned appreciates the Examiner's acknowledgement that to the extent that earlier amendments delete material from the specification, those amendments do not represent new matter. Upon entry of all aspects of the pending amendments, it will be clear that a VSN is assigned at the Server 41, after votes have been cast, and in a manner that "*would not, through inference or aggregation, divulge the voter's identity.*"<sup>2</sup>

c) The OA asserts that the objected amendment material:

... would add steps related to individual verifiability which were not originally disclosed.

In that the OA does not identify the added steps, it's difficult for the undersigned to respond. The undersigned anticipates that upon consideration of all pending amendment materials this objection will be moot.

d) The OA asserts (indented for clarity):

... the examiner has given the terms cast ballot, vote serial number and user the usual and customary definitions

(cast ballot: voted ballot, committed ballot, vote, completed ballot, submitted ballot, vote;

vote serial number: any unique vote identifier).

The undersigned agrees that these definitions are not inconsistent with the use of the terms "cast ballot" and "vote" in the application. Please note that a cast ballot is not, *inter alia*, an unvoted ballot or a ballot form delivered to a voter prior to his vote. In each and every case where the original disclosure uses the naked word "ballot" to indicate a cast ballot, it is clear by context that a cast ballot was intended. The pending amendments reduce the number of times this occurs in an effort to be clear.

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<sup>2</sup> Original disclosure [0072].

The OA cites prior art concerning cast ballots, protection of cast ballots by cryptography, securely voting over a network, and the use of vote serial numbers. While it is true that each of these concepts is well known in the art, the present application isn't claiming these concepts. The present application claims methods that are a combination of using particular data items signed with the particular keys of particular entities in a particular order. The references cited in the OA do not disclose the claimed combinations of elements.

The OA goes on to assert that SHRADER discloses:

... ballots, both cast and pre-cast, are assigned a vote serial number (unique identifier; Figure 6, element 58; ballot number, Paragraph 0063;

"creates a electronic ballot consisting of the unique election identifier and *ballot serial number*", emphasis added, Paragraph 0061

It is difficult to reconcile this assertion from one just two pages earlier where the OA properly distinguishes between cast and pre-cast ballots. The cited portion of SHRADER clearly **does not disclose a cast ballot** under the Examiner's understanding at OA P11 (emphasis added):

As an initial matter the examiner has given the terms cast ballot ... the usual and customary definition (cast ballot: voted ballot, committed ballot, vote, completed ballot, submitted ballot, vote;

e) Please see earlier Replies for remarks directed to SHRADER disclosing the wrong data encrypted with the wrong key.

f) The OA asserts that SHRADER discloses a “user” as claimed in the application. While the undersigned continues to disagree, the claims have been amended to clearly show the relation of the invention to a “voter.”

g) Please see h)

h) The OA asserts that earlier Replies fail to comply with 37 C.F.R. 1.111(b) and (c) for not pointing out how the claims differ from the references or how they overcome objections; and that attacking references individually one cannot show non-obviousness. The undersigned recommends that the Office consider page 13 of the earlier Reply that address the earlier OA’s mischaracterization of SHRADER to find a comparison claimed in Claim 29 and page 15 of the earlier Reply that addresses the earlier OA neglecting to account for an element of the Confirmation Token claimed in Claim 31.

Regarding the Specification

The OA asserts that the most recent amendments stand objected to under 35 U.S.C. § 132(a) as introducing new matter because of Fig. 5 and references thereto in [0032]. This Reply provides traceability to/from the original disclosure for each and every feature of Fig. 5.

Regarding Claim Rejections under 35 USC §§102, 103

The undersigned renews remarks directed to these rejections in earlier Replies.

**CONCLUSION**

The foregoing is submitted as a full and complete response to the OA mailed 01/29/2008. With consideration of the above remarks directed to the rejections, the undersigned submits that this application is in condition for allowance, and such disposition is earnestly solicited.

The undersigned believe that the prosecution might be advanced by discussing the application with the Examiner. The undersigned requests an interview with the Examiner at the Examiner's earliest convenience.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-1458, and please credit any excess fees to such deposit account.

Respectfully submitted,

Date: April 9, 2008

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